

District 12 Mobility Performance Report

2017 3rd Quarter

DEPARTMENT OF TRANSPORTATION

October 25, 2017
District 12 TMC

DISTRICT 12 MOBILITY PERFORMANCE REPORT

2017 3rd Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 12 (Orange County) is located in southern California and is neighbors with District 7 (Los Angeles), District 8 (San Bernardino), and District 11 (San Diego). As of July 2016 the total population in Orange County was 3,172,532. Orange County is the third most populous county in California, the sixth-most populous in the United States, and more populous than twenty-one U.S. states. Its county seat is Santa Ana. It is the second most densely populated county in the state.

The Mobility Performance quarterly analysis compares information from the most recent quarter and the previous 4 quarters, involving the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD)
- Lost Lane Miles (LLM)
- Detector Health

This information is based on data collected every day of the quarter, twenty-four hours a day, by automated vehicle detector stations deployed on urban-area freeways where congestion is regularly experienced. The MPR uses congestion at two speed thresholds: delay from vehicles traveling below 35 MPH and delay from vehicles traveling below 60 mph. The 35 MPH limit represents severe congestion while the 60 MPH limit represents light and heavy congestion. These thresholds/limits are set by Caltrans and are based upon engineering experience and District input.

FINDINGS

In the third quarter, at 35 mph threshold, the total delay equaled to 2.6 million vehicle hours of delay (VHD), which was one percent (-0.8%) less than the second quarter. And at the 60 mph threshold, the total delay was 7.1 million VHD, which as 3.1% greater than the second quarter.

The average weekday VHD, in the third quarter, was 37 thousand hours of delay at 35 MPH and 98 thousand hours of delay at 60 MPH. That was an increase of 3.1%, from 36 thousand hours of delay, and a decrease of 5.7%, from 92 thousand hours of delay, compared to the previous quarter.

Top 10 Bottlenecks for the 3rd Quarter

Fwy	Location	Shift	Abs PM	CA PM	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
I405-N	BEACH 2	PM	16.53	16.76	62	5.60	149,879.20	11,575.00
SR55-N	EDINGER 2	PM	9.41	R9.41	61	3.59	78,293.10	10,225.00
I405-S	WARNER	AM	14.49	14.72	62	3.73	51,754.40	10,095.00
I405-S	HARVARD	PM	5.98	6.21	62	1.60	43,369.20	10,515.00
I405-N	BROOKHUR2	PM	13.74	13.97	58	3.87	42,283.60	5,785.00
I405-N	BUSHARD	PM	14.31	14.54	53	4.82	33,882.40	9,540.00
I5-N	1ST	PM	103.05	30.8	63	0.71	23,833.60	15,655.00
SR55-N	DYER 2	PM	8.12	R8.12	62	2.16	21,311.00	5,135.00
SR22-E	LEWIS	AM	10.90	R9.44	53	3.06	19,501.60	5,675.00
SR55-N	DYER 2	NOON	8.12	R8.12	63	2.38	18,978.80	5,710.00

Quarterly Mobility Statistics

2017 Q3 Quarterly Mobility Statistics District 12

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<table><tr><th>Quarter</th><th>VMT (Billions)</th></tr><tr><td>2016 Q3</td><td>3.4</td></tr><tr><td>2017 Q2</td><td>3.5</td></tr><tr><td>2017 Q3</td><td>3.5</td></tr></table>	Quarter	VMT (Billions)	2016 Q3	3.4	2017 Q2	3.5	2017 Q3	3.5	Over one year ago	Over last quarter
		Quarter	VMT (Billions)								
2016 Q3	3.4										
2017 Q2	3.5										
2017 Q3	3.5										
		2.7% ↑	0.8% ↑								
Total Vehicle Hours of Delay (VHD) at 35 mph	<table><tr><th>Quarter</th><th>VHD (Millions)</th></tr><tr><td>2016 Q3</td><td>3.6</td></tr><tr><td>2017 Q2</td><td>2.6</td></tr><tr><td>2017 Q3</td><td>2.6</td></tr></table>	Quarter	VHD (Millions)	2016 Q3	3.6	2017 Q2	2.6	2017 Q3	2.6	Over one year ago	Over last quarter
		Quarter	VHD (Millions)								
2016 Q3	3.6										
2017 Q2	2.6										
2017 Q3	2.6										
		-28.1% ↓	-0.8% ↓								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<table><tr><th>Quarter</th><th>VHD (Thousands)</th></tr><tr><td>2016 Q3</td><td>50</td></tr><tr><td>2017 Q2</td><td>36</td></tr><tr><td>2017 Q3</td><td>37</td></tr></table>	Quarter	VHD (Thousands)	2016 Q3	50	2017 Q2	36	2017 Q3	37	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
2016 Q3	50										
2017 Q2	36										
2017 Q3	37										
		-25.8% ↓	3.3% ↑								
Total Vehicle Hours of Delay (VHD) at 60 mph	<table><tr><th>Quarter</th><th>VHD (Millions)</th></tr><tr><td>2016 Q3</td><td>8.5</td></tr><tr><td>2017 Q2</td><td>6.9</td></tr><tr><td>2017 Q3</td><td>7.1</td></tr></table>	Quarter	VHD (Millions)	2016 Q3	8.5	2017 Q2	6.9	2017 Q3	7.1	Over one year ago	Over last quarter
		Quarter	VHD (Millions)								
2016 Q3	8.5										
2017 Q2	6.9										
2017 Q3	7.1										
		-15.7% ↓	3.1% ↑								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<table><tr><th>Quarter</th><th>VHD (Thousands)</th></tr><tr><td>2016 Q3</td><td>115</td></tr><tr><td>2017 Q2</td><td>92</td></tr><tr><td>2017 Q3</td><td>98</td></tr></table>	Quarter	VHD (Thousands)	2016 Q3	115	2017 Q2	92	2017 Q3	98	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
2016 Q3	115										
2017 Q2	92										
2017 Q3	98										
		-14.7% ↓	5.7% ↓								

**2017 Q3 Quarterly Mobility Statistics
District 12**

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Monday -22.1%	Saturday -7.4%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		-	Tuesday 12%
		Largest Magnitude Weekday Decrease over one year ago	Largest Magnitude Weekday Decrease over last quarter
		5 PM -23.7%	4 PM -4.4%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		9 PM 44.4%	6 PM 23.6%
		Largest Magnitude Saturday Decrease over one year ago	Largest Magnitude Saturday Decrease over last quarter
		1 PM -52.2%	1 PM -34.2%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		11 PM 25.4%	5 PM 4.9%
		Largest Magnitude Sun./Holiday Decrease over one year ago	Largest Magnitude Sun./Holiday Decrease over last quarter
		3 PM -51.9%	2 PM -51.1%
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		7 AM 155.2%	10 PM 155.7%

2017 Q3 Quarterly Mobility Statistics
District 12

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph	<p>Hours (Millions)</p> <p>■ 2016 Q3 ■ 2017 Q2 ■ 2017 Q3</p> <p>Orange</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Orange -28.1% ↓	Orange -0.8% ↓
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph	<p>Miles</p> <p>■ 2016 Q3 ■ 2017 Q2 ■ 2017 Q3</p> <p>AM Peak (6 AM to 10 AM) Off-Peak Day (10 AM to 3 PM) PM Peak (3 PM to 7 PM) Off-Peak Night (7 PM to 6 AM)</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		PM Peak -23% ↓	Off-Peak Day -2.7% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Off-Peak Night 1.6% ↑	PM Peak 6.3% ↑
Average Number of Good and Bad Detectors	<p>Number of Detectors</p> <p>■ Average of Good ■ Average of Bad</p> <p>2016 Q3 2017 Q2 2017 Q3</p>	Change in Good over one year ago	Change in Good over last quarter
		-3% ↓	4% ↑
		Change in Bad over one year ago	Change in Bad over last quarter
		24% ↑	-14% ↓

**2017 Q3 Quarterly Mobility Statistics
District 12**

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2017 Q3-2016 Q3		Difference 2017 Q3-2017 Q2		Rank		
		2016 Q3	2017 Q2	2017 Q3	Absolute	Percentage	Absolute	Percentage	2016 Q3	2017 Q2	2017 Q3
I405	Orange	880,160	706,079	780,970	-99,190	-11.3%	74,891	10.6%	2	1	1
I5	Orange	901,516	471,591	522,741	-378,775	-42.0%	51,150	10.8%	1	3	2
SR55	Orange	501,147	461,403	418,170	-82,977	-16.6%	-43,233	-9.4%	4	4	3
SR91	Orange	642,451	495,655	372,390	-270,061	-42.0%	-123,265	-24.9%	3	2	4
SR57	Orange	392,755	226,682	217,560	-175,195	-44.6%	-9,122	-4.0%	5	5	5
SR22	Orange	136,610	131,925	148,581	11,971	8.8%	16,656	12.6%	6	6	6
SR73	Orange	127,576	105,409	108,567	-19,009	-14.9%	3,158	3.0%	7	7	7
SR241	Orange	31,632	21,880	29,597	-2,035	-6.4%	7,717	35.3%	8	8	8
I605	Orange	25,311	19,763	21,261	-4,051	-16.0%	1,498	7.6%	9	9	9
SR133	Orange	9,697	5,468	4,678	-5,019	-51.8%	-790	-14.4%	10	10	10
SR39	Orange	0	3	274	274		271	9043.3%		13	11
SR261	Orange	727	885	113	-613	-84.4%	-772	-87.2%	11	11	12
SR1	Orange	0	0	0	0		0				
SR142	Orange	0	0	0	0		0				
SR74	Orange	0	41	0	0		-41	-100.0%		12	